

REMARKS

The examiner stated:

**Applicant's election of claims 1-17 and 34-39 with traverse in response election/restriction requirement is acknowledged by the examiner. Claims 1-17 and 29-49 are pending of which claims 29-33 and 40-49 have been withdrawn from consideration as being drawn to a non-elected invention. Applicants are respectfully requested to cancel the non-elected claims 29-33 and 40-49 in response to this office action. Claims 1-17 and 34-39 have been examined.**

The rejections and response to arguments are stated below with respect to elected Claims 1-17 and 34-39. Applicant has not cancel claims 29-33 and 40-49, but instead views the examiner's response as making the requirement "final."

Accordingly, Applicant has filed herewith a petition to withdraw the requirement.

35 USC § 112

The examiner rejected Claims 1-17 and 34-39 under 35 U.S.C. 112, second paragraph, as being indefinite.

The examiner stated:

Independent claim 1 recites the limitation "a display coupled to the computing system rendering a graphical user interface rendered on the display". It is not clear if the display is rendering the graphical user interface or the computing system is rendering a graphical user interface. Also the limitation "the graphical user interface allowing the user to form the order and to choose a priority type for how the order interacts with contra side quotes/orders in the trading venue" is interpreted as non-functional descriptive material because it only describes the information in the graphical user interface (GUI). To be functional the display must have structural elements related to "order" characteristics as described. Claim 1 also recites the limitation "allowing the user

to form the order and to choose a priority type for how the order interacts with contra side quotes/orders in the trading venue". It is not clear as to what is the outcome of using this feature. Allowing a user to perform a function does not necessarily imply that the function is performed. Claim 1 also recites "a specified quantity if a security". The examiner has interpreted this limitation to be "a specified quantity of a security".

Applicant has made clarifying amendments to claim 1 requiring "a client system for entering an order to buy or sell a specified quantity of a security ... and "a display, coupled to the computing system, the display rendering a graphical user interface ... the graphical user interface including a field that allows the user ... ." Applicant has corrected minor informalities and has provided a functional/structural limitation to the graphical user interface, the graphical user interface including a field that allows the user to choose a priority type for how the order interacts with contra side quotes/orders in the trading venue.

The examiner also stated:

Also independent claims 1 and 34 also recite the limitations "that can at least in part satisfy the order" and "how the order interacts with contra side quotes/orders in the trading venue". It is not clear what the applicants mean by these limitations. The use of the phrase "can" does not further limit the claim. Similarly the use of the phrase "how the order interacts with contra side quotes/orders" does not further limit the claim. The metes and bounds of these limitations and hence the scope of these claims is not clear.

Applicant contends that these limitations are clear to one of ordinary skill in the art. For example order types "that can at least in part satisfy the order" pertain to order types that permit, e.g., partial executions. The examiner has not shown while one skilled in the art would not appreciate the metes and bounds of this term. The examiner also stated: "**Similarly the use of the phrase 'how the order interacts with contra side quotes/orders' does not further limit the claim.**" Applicant disagrees. First, whether or not a term or phrase further limits the claim should not be a basis for

a 112, second paragraph rejection if one skilled in the art understands the claimed feature.

Second, for reasons discussed below the term clearly does limit the claim.

Applicant has also amended claim 34 to call for "the client computing system."

Accordingly, the rejections have been overcome by amendment and/or argument and should be removed.

The examiner also stated: "**The art rejections below are interpreted in view of the 112, second paragraph rejections above.**"

### 35 USC § 101

The examiner rejected Claims 34-39 are rejected under 35 U.S.C. § 101, as allegedly directed to non-statutory subject matter. The examiner stated:

A claimed process is eligible for patent protection under 35 U.S.C. § 101 if:

"(1) it is tied to a particular machine or apparatus, or (2) it transforms a particular article into a different state or thing." See *Uniloc*, 460 U.S. at 97 ("Transformation and reduction of an article 'in a different state or thing' is the key to the patentability of a process claim that does not involve particular machinery"). *Digital*, 439 U.S. at 392 (holding that use of mathematical formulas in process transformations, or reducing an article to a different state or thing, constitutes patent-eligible subject matter); see also *Flynn*, 431 U.S. at 508-09 (an argument can be made [that the Supreme] Court has only recognized a process as within the statutory definition when it either was tied to a particular apparatus or reduced an article to a different state or thing"). See also *Cochlear v. Cochlear*, 2008 U.S. Dist. LEXIS 15490 (a process is not a series of steps committed upon the subject matter to be transformed and reduced to a different state or thing); "A claimed process involving a fundamental principle that uses a particular machine, or apparatus, would not encompass use of the principle that do not tie it to the specified machine or apparatus in the manner claimed. And a claimed process may transform a particular article to a specified different state or thing by applying a fundamental principle would not preclude the use of the principle to transform any other article, to transform the same article but in a manner not covered by the claim, or to anything other than transform the specified article." (in re *Bilski*, 88 USPQ2d 3182, 3197 (Pat. Off. 2009)).

Also noted in Bilski is the assessment, "Process claim that invokes fundamental principle, and that otherwise fails 'transforms or reduces' test for whether such claim is drawn to patentable subject matter under 35 U.S.C. §101, is not rendered patent eligible by mere field-of-use limitations. In other words, if machine-or-transformation test is not satisfied, use of specific machine or particular transformation of specific article

does not transform "apparatus or principle into patentable process if recited machine or transformation constitutes mere 'insignificant post-solution activity.'" *Ge v. Bilski*, 871 USPQ2d 1433, 1437 (Fed. Cir. 2008). Examples of insignificant post-solution activity include data gathering and computing. Furthermore, the machine or transformation must impose meaningful limits on the scope of the method claims in order to pass the machine-or-transformation test. Please refer to the USPTO's "Guidance for Examining Procedural Claims in view of *in re Bilski* (transmittal dated January 9, 2009).

[http://www.uspto.gov/web/offices/examination/docproc/mchdkr\\_guidence\\_mech.pdf](http://www.uspto.gov/web/offices/examination/docproc/mchdkr_guidence_mech.pdf)

It is also noted that the mere recitation of a machine is the *presumption* in a machine test that the machine *fails* to passability from the scope of the claim does not make the claim statutory under 35 U.S.C. § 101, as seen in the Board of Patent Appeals and Interference Opinion *Ex parte Langmyer* et al. (Appeal 2008-1495),

<http://www.uspto.gov/web/offices/examination/docproc/2008-1495.pdf>

Claims 34-39 are not tied to a particular machine or apparatus nor do they transform a particular article into a different state or thing, thereby failing the machine-or-transformation test, therefore, claims 34-39 are non-statutory under § 101. While several functions are recited in "a client computing system" it is not clear who or what is performing these cognitive functions. For example, the functionality may be carried out by a user entering information at the client computing system. In this scenario, the functionality is not performed by a particular machine. Also, how specific functionality can be interpreted as mere data gathering (e.g., entering an order, choosing a plurality type for the order). These steps being performed at the client computing system is not proper with a machine imposing meaningful limits on the scope of the method claim, which is required in order to pass the machine prong of the machine-or-transformation test. Also noted is that many of the same "cognitively" steps of the claimed invention are not clearly executed by a machine, such as the client computing system. At present, the recited machine (i.e., the client computing system) does no more than engage in insignificant pre- or post-solution activity. Dependent claims are rejected by way of dependency on a rejected independent claim. Hence the recited method of claims 34-39 does not qualify as a process under 35 USC 101. (See also *Ex parte Langmyer*, Appeal 2008-1495, BPAI Decision May 28, 2008).

Applicant has amended claim 34 to specifically tie the meaningful steps of the claim to a particular machine thus passing the machine prong of the *Bilski* test as was held by the Federal

Circuit. Applicant notes however that the machine or transformation test is not the sole test for patent-eligible subject matter as was held by the Supreme Court in *Bilski v. Kappos* \_\_\_\_ U.S. \_\_\_\_ (2010).

Accordingly, the rejection has been overcome and should be withdrawn.

**35 USC § 103**

The examiner rejected Claims 1, 2, 17 and 34 under 35 U.S.C. 103(a) as being unpatentable over Madoff (US Patent 7,617,144 B2).

Claim 1, Madoff teaches a system for an electronic venue for trading of securities (See Madoff Figure 1) comprising: a client station for entering an order to buy or sell a specified quantity of a security, the order of a type that is executable against any participant that can at least in part satisfy at least a portion of the specified quantity of the order (See the entire disclosure of Madoff particularly Abstract, Column 1 line 39 – Column 2 line 63, Column 3 lines 57-64); the client station including: a computing system; a display coupled to the computing system rendering a graphical user interface rendered on the display, the graphical user interface allowing the user to form the order and to choose a priority type for how the order interacts with contra side quotes/orders in the trading venue (See the entire disclosure of Madoff particularly Figure 1, Abstract, Column 1 line 39 – Column 2 line 63, Column 3 lines 57-64, the order type is interpreted to include an order priority type).

Claim 1 is neither described nor rendered obvious by Madoff. Claim 1 includes the feature of "... a display ... rendering a graphical user interface, ... including a field that allows the user to choose a priority type for how the order interacts with contra side quotes/orders in the trading venue." At least this feature is neither described nor render obvious by Madoff.

With respect to this feature, the examiner states: "... and to choose a priority type for how the order interacts with contra side quotes/orders in the trading venue (See the entire disclosure of Madoff particularly Figure 1, Abstract, Column 1 line 39 – Column 2 line 63, Column 3 lines 57-64, the order type is

interpreted to include an order priority type).” Applicant contends that Madoff does not teach at least this feature.

At “**Figure 1**,” Madoff shows an auction system that has a crowd with order entry and response sides. However, nowhere in Figure 1 is the claimed feature “... a display ... rendering a graphical user interface, ... including a field that allows the user to choose a priority type for how the order interacts with contra side quotes/orders in the trading venue” described or suggested. At the “**Abstract**,” Madoff describes orders, predefined relative indications and responses. None of these are described however as including the feature “... a display ... rendering a graphical user interface, ... including a field that allows the user to choose a priority type for how the order interacts with contra side quotes/orders in the trading venue.”

At “**Column 1 line 39 - Column 2 line 63, Column 3 lines 57-64**,” Madoff describes orders, predefined relative indications, and responses. The features of these involve the prices at which they are executed, e.g., fixed or relative prices and price improvement. While Madoff mentions priority as i.e., time priority, nothing in Madoff allows order formation to control the priority type for how the order interacts in the market. Moreover, nothing in Madoff suggests, much less describes: “... a graphicel user interface ... allowing the user to form the order and ... ineluding a field that allows the user to choose a priority type for how the order interacts with contra side quotes/orders in the trading venue.”

The examiner also stated that: “**the order type is interpreted to include an order priority type.**” This interpretation is not supportable by the disclosure of Madoff and is the result of improper ex post reasoning on the part of the examiner. Moreover, this interpretation is improper in the context of an anticipation rejection where for a reference to be a proper anticipating reference it must describe (either inherently or explicitly) all the features of a claim as those features appear in the claim. In addition, the claimed feature of “... a display ... rendering a graphical user interfaee, ... including a field that allows the user to choose a priority type for how the order interaets with contra side quotes/orders in the trading venue,” is not the same as an “order priority type.” What does the examiner mean by an “order priority type?”

Accordingly, claim 1 is patentable over Madoff.

Claim 2

Claim 2, which requires: “a server system coupled to the network that receives the order from the client system and executes the order against interest in the trading venue based on the priority type chosen by the user,” is neither described nor rendered obvious by Madoff. Madoff contrary to the examiner’s improper construction of the claim does not suggest a server that executes the order based on the priority type chosen by the user. Rather, it is clear from the passages relied on that Madoff describes a price/time priority scheme that is set by the auction, and which does not permit a user to select other priority schemes for order interaction.

Claim 17 is allowable over Madoff at least for the reasons given in its base claim.

Claim 34

Claim 34, includes the features of “... receiving by one or more computers ... an order executable against any participant ... the order including a field for providing a priority type for how the order interacts with contra side quotes/orders in the trading venue; and determining by the one or more computers the priority type for how the order interacts with contra side quotes/orders in the trading venue.”

Madoff neither describes nor suggested these features for analogous reasons given above.

The examiner rejected Claims 3-16 and 35-39 under 35 U.S.C. 103(a) as being unpatentable over Madoff in view of NASD Rulemaking Reference (Reference U in PTO-892 mailed March 18, 2008).

The examiner stated:

Madoff does not explicitly teach the features included in claims 3-16 and 35-39. Reference U teaches the features in these claims (See the disclosure of Reference U). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the features taught by Reference U to the invention of Madoff. The motivation to combine is that the combined system will bring together a broad range of participants into a single, integrated electronic system that will maximize the role of each participant to the ultimate benefit of all participants in the Nasdaq Stock Market as a whole - individual and institutional investors, order-entry broker-dealers, market makers, and ECNs (See page 2 of Reference U).

Applicant disagrees. First, the sole motivation for combining these references originates from Applicant's claims/specification because absent the teaching of "a field that allows the user to choose a priority type for how the order interacts with contra side quotes/orders in the trading venue" for example, one would not otherwise combine the auction system of Madoff with the Market system described by NASD.

Secondly, had Madoff actually taught the feature argued above regarding "a field that allows the user to choose a priority type for how the order interacts with contra side quotes/orders in the trading venue," Madoff would have necessarily taught at least some of the features of these claims that the examiner admits are not taught by Madoff. Specifically, Madoff would have taught at least some of the features of claims 4-16. Note, while claim 12 mentions "price improvement," and certain of the PRI's described by Madoff can offer price improvement, Madoff does not teach price improvement as a mechanism for choosing a priority as to how the order interacts in the markets and specifically, as: "ECNs that charge a separate quote-access fee where the ECN that charges indicates that price improvement offered by the quote/order is equal to or exceeds the quote-access fee with the execution being in time priority between such interest."

In addition, Madoff when combined with NASD still does not provide the claimed feature of e.g., "a field that allows the user to choose a priority type for how the order interacts with contra side quotes/orders in the trading venue," required by the base claims.

Accordingly, the claims are allowable over the alleged combination of references.

The examiner also furnished a response to arguments pertaining to the restriction requirement which is addressed in the accompanying petition.

The Petition for Extension of Time fee is being paid concurrently on the electronic filing system by way of deposit account authorization. Please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

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